I claim:

1. An isolated and purified polypeptide with a protein transduction domain (PTD) which comprises Arg-Lys-Met-Leu-Lys-Ser-Thr-Arg-Arg-Gln-Arg-Arg (SEQ ID NO:1).

2. The polypeptide of claim 1 further comprising at its amino terminus Lys-Xaa-Xaa, wherein Xaa is a small neutral polar or nonpolar amino acid.

3. The polypeptide of claim 2 comprising the amino acid sequence is Lys-Gly-Gly-Arg-Lys-Met-Leu-Lys-Ser-Thr-Arg-Arg-Gln-Arg-Arg (SEQ ID NO:2).

4. An isolated and purified polynucleotide encoding Arg-Lys-Met-Leu-Lys-Ser-Thr-Arg-Arg-Gln-Arg-Arg (SEQ ID NO:1).

5. A vector comprising the polynucleotide of claim 4.

6. A host cell comprising the vector of claim 5.

7. A complex comprising a polypeptide with a PTD linked to a cargo moiety wherein the PTD comprises Arg-Lys-Met-Leu-Lys-Ser-Thr-Arg-Arg-Gln-Arg-Arg (SEQ ID NO:1).

8. The complex of claim 7 wherein the cargo moiety is selected from the group consisting of a small molecule, a nucleic acid, and a polypeptide.

9. The complex of claim 8 wherein the cargo moiety is a small molecule, wherein the small molecule is selected from the group consisting of a radionuclide, a fluorescent marker, a dye, and a pharmaceutical agent.

10. The complex of claim 8 wherein the cargo moiety is a polypeptide, wherein the polypeptide is selected from the group consisting of an immortalization protein, an anti-apoptotic protein, and an antibody.

11. The complex of claim 10 wherein the polypeptide is an immortalization protein, wherein the immortalization protein is selected from the group consisting of SV40 large T antigen and telomerase.

12. The complex of claim 10 wherein the polypeptide is an anti-apoptotic protein, wherein the anti-apoptotic protein is selected from the group consisting of mutant p53 and Bcl_XL.

13. The complex of claim 7 wherein the complex is a fusion protein.

14. A polynucleotide encoding a fusion protein comprising Arg-Lys-Met-Leu-Lys-Ser-Thr-Arg-Arg-Gln-Arg-Arg (SEQ ID NO:1) linked to a polypeptide cargo moiety.

15. A vector comprising the polynucleotide of claim 14.

16. A host cell comprising the vector of claim 15.

17. A method of delivering a cargo moiety to an intracellular compartment of a cultured cell comprising the step of:

contacting a cell *in vitro* with a complex comprising a polypeptide with a PTD linked to a cargo moiety, wherein the PTD comprises Arg-Lys-Met-Leu-Lys-Ser-Thr-Arg-Arg-Gln-Arg-Arg (SEQ ID NO:1), whereby the cargo moiety is delivered to an intracellular compartment of the cell.

18. A method of reversibly immortalizing a cell in culture comprising the step of:

contacting a cell *in vitro* with a complex comprising a polypeptide with a PTD linked to a cargo moiety, wherein the PTD comprises Arg-Lys-Met-Leu-Lys-Ser-Thr-Arg-Arg-Gln-Arg-Arg (SEQ ID NO:1) and wherein the cargo moiety is an immortalization protein, whereby the cell is reversibly immortalized.

19. The method of claim 18 further comprising the step of removing the complex from the cell culture medium to reverse immortalization.

20. The method of claim 18 wherein the cell is a primary cell.

21. The method of claim 20 wherein the primary cell is selected from the group consisting of adipocytes, astrocytes, cardiac muscle cells, chondrocytes, endothelial cells, epithelial cells, fibroblasts, gangliocytes, glandular cells, glial cells, hematopoietic cells, hepatocytes, keratinocytes, myoblasts, neural cells, osteoblasts, ovary cells, pancreatic beta cells, renal cells, smooth muscle cells, and striated muscle cells.

22. The method of claim 18 wherein the immortalization protein is selected from the group consisting of SV40 large T antigen and telomerase.

23. A cell reversibly immortalized by the method of claim 18.

24. A method of increasing viability of a cell in culture, comprising the step of:

contacting a cell *in vitro* with a complex comprising a polypeptide with a PTD linked to a cargo moiety, wherein the cargo moiety is an anti-apoptotic protein.

25. The method of claim 24 wherein the anti-apoptotic protein is selected from the group consisting of mutant p53 and Bcl_XL.

26. The method of claim 24 wherein the cell is a primary cell.

27. The method of claim 24 wherein the PTD comprises Arg-Lys-Met-Leu-Lys-Ser-Thr-Arg-Arg-Gln-Arg-Arg (SEQ ID NO:1).

28. The method of claim 26 wherein the primary cell is selected from the group consisting of adipocytes, astrocytes, cardiac muscle cells, chondrocytes, endothelial cells, epithelial cells, fibroblasts, gangliocytes, glandular cells, glial cells, hematopoietic

cells, hepatocytes, keratinocytes, myoblasts, neural cells, osteoblasts, ovary cells, pancreatic beta cells, renal cells, smooth muscle cells, and striated muscle cells.

29. The polypeptide of claim 1 further comprising a chemical cross-linker.

30. The polypeptide of claim 29 wherein the chemical cross-linker is maleimide or 3-nitro-2-pyridyldithio group.